

NOVEMBER/DECEMBER 2023

**CMB52 — AGRICULTURAL AND  
ENVIRONMENTAL MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks



**SECTION A — (10 × 2 = 20 marks)**

Answer ALL questions.

1. What are Pore Spaces?
2. Define Bulk density.
3. What is Mineralization?
4. Define Humous.
5. Define Pathogen.
6. What is Phyllosphere?
7. Define Nosocomial Infections.
8. What are Aeroallergens?
9. Define Periphyton.
10. Expand BOD.



SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe the various kinds of Microbes found in Soil.

Or

- (b) Give an account of the Different Types of Soil.

12. (a) Write notes on Phosphorous Cycle.

Or

- (b) Explain briefly about Bacterial Insecticides.

13. (a) Explain the Mutualism with an example.

Or

- (b) Describe the Symptoms, Epidemiology and Control of Bacterial Leaf Blight of Rice.

14. (a) Define Aeromicrobiology. Add a note on various sources of Air borne organisms.

Or

- (b) What is Air Sanitation? Give Concise note on Physical techniques of Air Sanitation.

15. (a) Comment on Pond Ecosystem.

Or

- (b) Explain the Process of Activated Sludge System.



SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the Chemical Properties of Soil.

17. Give elaborate account on Nitrogen Cycle.

18. Give an account of Symptoms, Causal organisms, Disease cycle and control measures of Wilt disease of Cotton.

19. Discuss in detail about the different Air sampling devices.

20. Define Potable Water. Explain the most probable number technique.